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ROBERT A. KENT			LE, HOA T	
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte M. VIKRAM RAO

Appeal 2009-004573
Application 10/631,954
Technology Center 1700

Decided: April 23, 2010

Before ADRIENE LEPIANE HANLON, PETER F. KRATZ, and
MARK NAGUMO, *Administrative Patent Judges*.

HANLON, *Administrative Patent Judge*.

DECISION ON APPEAL

A. STATEMENT OF THE CASE

This is an appeal under 35 U.S.C. § 134 from an Examiner's decision rejecting claims 1-17 under 35 U.S.C. § 102(e) as anticipated by Dejaiffe.^{1,2} We have jurisdiction under 35 U.S.C. § 6(b). We AFFIRM.

¹ Claims 18-59 are also pending but have been withdrawn from consideration. Final Office Action dated May 12, 2006, at 1.

² US 6,913,643 B2 to Dejaiffe issued July 5, 2005.

Claim 1, reproduced below, is representative of the subject matter on appeal.

1. Particulates comprising silica, an aluminum oxide in an amount of less than about 25%, and at least one void, the particulates having a specific gravity of less than about 2.2, a particle size of 8 U.S. Mesh or smaller, and a substantially spherical shape.

App. Br., Claims Appendix.³

B. ISSUES⁴

(1) Has the Appellant identified reversible error in the Examiner's finding that particulates produced by the process disclosed in Dejaiffe inherently have a "substantially spherical shape" and a size of "8 U.S. Mesh or smaller" as recited in claim 1?

(2) Has the Appellant identified reversible error in the Examiner's finding that particulates produced by the process disclosed in Dejaiffe inherently have a size of "25 U.S. mesh or smaller" as recited in claim 6?

C. FINDINGS OF FACT

1. Appellant's Specification

According to the Appellant's Specification, the particulates of the present invention comprise combustion products of carbonaceous materials, such as oil, wood, garbage, sewage, hydrocarbons, coal, and the like. Typically, such combustion products suitable for use in the present invention

³ Appeal Brief dated January 10, 2007.

⁴ The Appellant argues claims 1-5, 7-14, 16, and 17 as a group and claims 6 and 15 as a group. Thus, for purposes of this appeal, claims 2-5, 7-14, 16, and 17 stand or fall with the patentability of claim 1 and claim 15 stands or falls with the patentability of claim 6. 37 C.F.R. § 41.37(c)(1)(vii) (2009).

comprise from about 30 to 70 percent by weight silica and from about 5 to about 25 percent by weight aluminum oxides. Spec., para. [016].

The Appellant discloses that “[w]hen such combustion products are pelletized and sintered, they produce particulates that are substantially spherical and that exhibit specific gravities of below about 2.2.” Spec., para. [025].

The Appellant discloses that low specific gravities are the result of controlling the percentages of metal oxides in the final particulate. Spec., para. [018].

The Appellant defines the term “spherical” as “having an average ratio of minimum diameter to maximum diameter of about 0.7 or greater.” Spec., para. [025].

2. Dejaiffe

Dejaiffe discloses a glass material comprising 51-65 weight percent silica and 8-14 weight percent alumina. Dejaiffe 4:5-10.

Existing high temperature waste processing systems are used to formulate the disclosed glass material. Dejaiffe 4:20-22.

According to Dejaiffe, a wide variety of waste materials that are currently disposed of in industrial landfills and/or hazardous waste disposal facilities can be successfully incorporated into the disclosed glass material. Dejaiffe 3:45-52, 4:32-46.

Dejaiffe discloses that the glass material is suitable for use as a lightweight aggregate. Dejaiffe 3:36-38.

The lightweight aggregate can be formed in large and small sizes. Dejaiffe 4:66-5:1.

Smaller sized lightweight aggregate is formed as follows:

To form smaller sized lightweight aggregate, which is aggregate having a closed cell structure and approximately the size of sand, the glass is either pelletized, or spray dried, followed by firing in open flame in a manner similar to perlite expansion.

Dejaiffe 5:8-12.

The Examiner found, and the Appellant does not dispute, that the typical dimension for sand is about 50 μm to 2 mm. Ans. 3, Attachments 1A, 1B.⁵

The Examiner found, and the Appellant does not dispute, that 8 U.S. Mesh is about 2.38 mm particle size and 25 U.S. Mesh is about 710 μm particle size. Ans. 8-9, Attachment 2.

D. PRINCIPLES OF LAW

Where the claimed and prior art products are produced by identical or substantially identical processes, the PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of the claimed product. Whether the rejection is based on “inherency” under 35 U.S.C. § 102 and/or “prima facie obviousness” under 35 U.S.C. § 103, the burden of proof is the same, and its fairness is evidenced by the PTO’s inability to manufacture products or to obtain and compare prior art products. *In re Best*, 562 F.2d 1252, 1255 (CCPA 1977).

“[I]nherent anticipation does not require that a person of ordinary skill in the art at the time would have recognized the inherent disclosure.”

Schering Corp. v. Geneva Pharmaceuticals, 339 F.3d 1373, 1377 (Fed. Cir. 2003).

⁵ Examiner’s Answer dated July 28, 2008.

E. ANALYSIS

The Examiner found that the processes used to produce the claimed particulates and the small aggregates in Dejaiffe are substantially the same. In particular, the Examiner found that the Appellant and Dejaiffe both pelletize and sinter a similar combustion product to form particulates. Thus, the Examiner found that the small aggregates in Dejaiffe inherently have a “substantially spherical shape” as recited in claim 1. Ans. 3-4.

The Examiner’s findings are supported by a preponderance of the evidence on the record before us. That is, the Appellant and Dejaiffe produce similar products that are processed in a similar manner, i.e., pelletized and sintered. Thus, the burden properly shifted to the Appellant to establish that the small aggregates produced by the process disclosed in Dejaiffe do not inherently have a “substantially spherical shape.”

In response, the Appellant argues that “the processes of sintering and pelletization may produce aggregates of all different shapes, which may or may not be substantially spherical.” App. Br. 5. For support, the Appellant directs our attention to an article by Randall M. German⁶ and US 3,125,794.⁷ *Id.*

Significantly, the German article and the Reynolds patent do not disclose a process similar to the Appellant’s process or the process disclosed in Dejaiffe. In particular, the Examiner correctly points out that the German article does not discuss pelletizing and the Reynolds patent is directed to molding pellets from a ribbon. Ans. 6-7; *see also* Reynolds 3:12-17

⁶ Randall M. German, *Sintering Theory and Practice* 258-60 (John Wiley & Sons, Inc. 1996). Hereinafter “German article.”

⁷ US 3,125,794 to Reynolds issued March 24, 1964. Hereinafter “Reynolds patent.”

(employing a molding sleeve to mold the pellets). Thus, the Appellant's evidence is not sufficient to establish error in the Examiner's finding of inherency.

The Appellant also argues that Dejaiffe does not disclose particulates having a particle size of "8 U.S. Mesh or smaller" as recited in claim 1 or a particle size of "25 U.S. mesh or smaller" as recited in claim 6. App. Br. 8.

Significantly, the Appellant does not dispute the Examiner's finding that the small aggregates disclosed in Dejaiffe are "the size of sand" which is as small as 50 μm . Ans. 3; *see also* Dejaiffe 5:8-12. According to the record before us, particles as small as 50 μm are smaller than 8 U.S. Mesh and smaller than 25 U.S. Mesh. Ans. 8-9, Attachment 2. Thus, we find that Dejaiffe describes small aggregates having a size within the scope of claims 1 and 6. Moreover, the Appellant has not come forward with credible evidence showing that sand would not be expected to meet the Appellant's definition of "spherical," i.e., have "an average ratio of minimum diameter to maximum diameter of about 0.7 or greater." *See* Spec., para. [025].

F. DECISION

The decision of the Examiner is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED

tc

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